



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAR 07 2018

Mr. Mark Klotz, P.E., Director
Division of Water, 4th Floor
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-3500

Dear Mr. Klotz:

On February 24, 2016, the U.S. Environmental Protection Agency (EPA) received the New York State Department of Environmental Conservation (NYSDEC) revisions to New York State's water quality standards (NYSWQS). These revised water quality standards (WQS), adopted by the NYSDEC on November 4, 2015, amended the designated uses of Class I and Class SD saline surface waters to include a designated use of primary contact recreation (6 NYCRR §§ 701.13 and 701.14). Additionally, these revised WQS amended the water quality criteria for Class I and Class SD saline surface waters (6 NYCRR Part 703).¹

In a letter dated May 9, 2016, the EPA approved, pursuant to Section 303(c) of the Clean Water Act (CWA), 33 U.S.C. §1313(c), the revised designated uses of Class I and Class SD saline surface waters at 6 NYCRR Part 701. However, in the same letter, the EPA expressly declined to act on the revised criteria. The EPA has now completed its review of the revised criteria, and pursuant to the EPA's authority under CWA Section 303(c) and its implementing regulations at 40 CFR Part 131, the EPA is hereby disapproving the NYSDEC's revised criteria for Class I and Class SD saline surface waters at 6 NYCRR §§ 703.4(a) and (b).

Background

In December 2014, the NYSDEC proposed revisions to the uses and criteria for Class I and Class SD saline surface waters at 6 NYCRR Parts 701 and 703.² The NYSDEC held a public meeting on January 6, 2015, and a public hearing on March 9, 2015, to receive public input and comment on the proposed revisions to the NYSWQS. On November 4, 2015, the NYSDEC adopted the

¹ From NYSDEC's February 24, 2016 letter submitting the WQS to the EPA for review and approval under section 303(c) of the Clean Water Act: "These amendments require that the quality of Class I and Class SD saline surface waters be suitable for primary contact recreation, such as swimming. The amendments also establish standards for total and fecal coliforms, to protect these waters for such recreation. This rulemaking was necessary to meet the "swimmable" goal of the federal Clean Water Act."

² From NYSDEC's proposed rulemaking in the NY State Register: "The purpose of this rulemaking is to amend Part 701 to require that the quality of Class I and Class SD waters be suitable for "primary contact recreation," and to adopt corresponding total and fecal coliform standards in 6 NYCRR Part 703 (Part 703)."

revisions, and submitted them to the EPA on February 24, 2016. These revisions amended the designated uses of Class I and Class SD saline surface waters to include a designated use of primary contact recreation (6 NYCRR §§ 701.13 and 701.14), and amended the associated water quality criteria for Class I and SD saline surface waters (6 NYCRR §§ 703.4(a) and (b)). The NYSDEC revised the criteria as follows:

- The total coliform criterion (per 100 ml) for Class I waters was revised from "The monthly geometric mean, from a minimum of five examinations, shall not exceed 10,000" to "The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400 and 5,000, respectively."
- The total coliform criterion (per 100 ml) for Class SD waters was revised from no applicable total coliform criterion to "The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400 and 5,000, respectively."
- The fecal coliform criterion (per 100 ml) for Class I waters was revised from "The monthly geometric mean, from a minimum of five examinations, shall not exceed 2,000" to "The monthly geometric mean, from a minimum of five examinations, shall not exceed 200."
- The fecal coliform criterion (per 100 ml) for Class SD waters was revised from no applicable fecal coliform criterion to "The monthly geometric mean, from a minimum of five examinations, shall not exceed 200."

The NYSDEC's February 24, 2016 submittal package included the following enclosures:

- (1) Notice of Proposed Rulemaking from the New York State Register (December 3, 2014), including the: text of the proposed rule (express terms), summary of the Regulatory Impact Statement (RIS), Regulatory Flexibility Analysis, statements regarding the Rural Area Flexibility Analysis and Job Impact Statement and notification of the public information meeting and public hearing;
- (2) RIS;
- (3) Mailing of the notice of the public hearing to municipal officials and permittees;
- (4) Affidavits of publication of newspaper notices about the public hearing and public information meeting;
- (5) Environmental Notice Bulletin announcement of the public hearing and public information meeting, December 3, 2014;
- (6) Slides from the NYSDEC presentation at the January 6, 2015 public information meeting;
- (7) Transcript of the March 9, 2015 public hearing;
- (8) Adoption notice from the New York State Register, November 4, 2015 and the Notice of Adoption in the Environmental Notice Bulletin, November 4, 2015;
- (9) Assessment of Public Comment; and,
- (10) Certification from the New York State Attorney General Eric T. Schneiderman, certifying that the standards were duly adopted pursuant to New York State law.

Clean Water Act Requirements for Water Quality Standards

Section 303(c)(2)(A) of the CWA, 33 U.S.C. § 1313(c)(2)(A), requires states to establish WQS for their waters that include the designated uses of those waters, and water quality criteria

necessary to protect those designated uses. The CWA implementing regulations at 40 CFR § 131.11(a)(1) require states to adopt water quality criteria that protect the most sensitive designated use and that are based on sound scientific rationale.

Pursuant to CWA Section 303(c) and 40 CFR § 131.20, at least once every three years, states are required to hold public hearings for the purpose of reviewing their applicable WQS, and as appropriate, modify their WQS and/or adopt new WQS. States are required to submit new or revised WQS to the EPA for review and approval or disapproval, as the EPA must ensure that any revisions to WQS are consistent with the CWA and the implementing regulations.

Water Quality Criteria to Protect the Designated Use of Primary Contact Recreation

The EPA has discouraged the use of total and fecal coliforms as indicators of fecal contamination since 1986 because they are not reliable indicators of illness to swimmers.³ Instead, the EPA has long recommended the use of alternate indicators of fecal contamination. As far back as 1986, the EPA clearly stated the Agency's expectations for states to transition to indicators that are superior to fecal coliforms.⁴ In 1986 and again in 2012⁵, the EPA, pursuant to Section 304(a) of the CWA, 33 U.S.C. § 1314(a), issued recommended recreational water quality criteria (RWQC) to protect the public from exposure to harmful levels of pathogens while participating in primary contact recreation activities such as swimming. These recommended RWQC are based on two bacterial indicators of fecal contamination – *E. coli* or enterococci in fresh waters, and enterococci in marine waters.

The EPA's 2012 recommended RWQC include a magnitude expressed as both a geometric mean (GM) corresponding to the 50th percentile and a statistical threshold value (STV) corresponding to the 90th percentile of the same water quality distribution. Specifically, EPA stated, "EPA's criteria recommendations are both for a GM and STV (rather than just a GM or just an STV) because used together they would indicate whether the water quality is protective of the designated use of primary contact recreation. Using the GM alone would not reflect spikes in water quality because the GM alone is not sensitive to them."

The EPA's 2012 recommended RWQC reflect the latest research and most recent science, including studies that show a link between illness and fecal contamination in recreational waters, and are designed to protect human health in all waters with a designated use of primary contact recreation, including both coastal (marine or saline) and non-coastal (fresh) waters.

³ "...total coliforms and fecal coliforms showed very weak correlations to gastroenteritis", the primary illness caused by swimming in waters with bacterial contamination. EPA's *Ambient Water Quality Criteria for Bacteria – 1986* at Page 5 (January 1986). "...the purpose of the 1986 bacteria criteria document [was] to recommend that States replace their fecal coliform criteria for recreation with enterococci or *E. coli* criteria because studies showed low correlation between fecal coliform densities and illness rates...the unequivocal conclusion of the entire document [was] that the fecal coliform criteria for recreation is not a reliable indicator of illness to swimmers." 69 FR 67218 at 67230 (November 16, 2004).

⁴ "Therefore, EPA believes that the newly recommended indicators are superior to the fecal coliform group. Therefore, EPA strongly recommends that states begin the transition process to the new indicators." EPA's *Ambient Water Quality Criteria for Bacteria – 1986* at Page 11 (January 1986).

⁵ USEPA 2012. *Recreational Water Quality Criteria*. Office of Water 820-F-12-058.
<https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf>

The EPA's Action

The NYSDEC's revised water quality criteria for Class I and Class SD saline surface waters are based on outdated and unreliable indicators of fecal contamination and NYSDEC's revised fecal coliform water quality criteria for these waters lack a short-term upper limit (i.e., STV).

Applying the requirements of the CWA and its implementing regulations, as informed by the most recent science on illness to swimmers due to fecal contamination included in the EPA's 2012 recommended RWQC, the EPA hereby disapproves the revised water quality criteria at 6 NYCRR §§ 703.4(a) and (b) because they are not scientifically defensible and not protective of the primary contact recreation designated use of Class I and Class SD saline surface waters.

Remedy to Address the EPA's Disapproval

Pursuant to CWA Section 303(c) and 40 CFR § 131.21, when the EPA disapproves a state's new or revised WQS, the EPA shall specify changes that are needed to assure compliance with the requirements of the CWA and 40 CFR Part 131.

To address this disapproval, the NYSDEC must adopt RWQC for Class I and Class SD saline surface waters that are based on a sound scientific rationale and protect the primary contact recreation designated use. To accomplish this objective, the NYSDEC could adopt RWQC consistent with the EPA's 2012 recommended RWQC for enterococci including a magnitude (including both a GM and STV), duration, and frequency, or the NYSDEC could adopt other scientifically defensible RWQC to protect the primary contact recreation use.

The EPA acknowledges that the NYSDEC, with technical assistance from the EPA, is indeed actively working toward adoption of revised WQS for Class I and Class SD saline surface waters, including RWQC based on the EPA's 2012 recommended RWQC. The EPA is also assisting the NYSDEC in analyzing whether a time-limited WQS variance(s), consistent with 40 CFR § 131.14, may be justified for certain discharges to Class I and Class SD waters.

EPA Region 2 looks forward to continuing to work with the NYSDEC to further improve New York State's WQS. If you have any questions, please call me at 212-637-4125 or have your staff contact Alyssa Arcaya, Chief, Clean Water Regulatory Branch at 212-637-3730.

Sincerely,

A handwritten signature in blue ink, appearing to read "Javier E. Laureano".

Javier Laureano, M.P.A., Ph.D.
Director
Clean Water Division